CLAIMS

- 1. Joint compound composition comprising:
- a) 50 to 60% of calcium sulphate hemihydrate;
- b) 5 to 15% of an organic binder in powder form; and
- c) 0.05 to 0.2% of a water repellent.
- 2. Joint compound composition according to Claim 1, characterized in that it furthermore includes:
- 10 d) 1 to 10% of a lightening agent.

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- 3. Joint compound composition according to Claim 1, characterized in that it comprises:
- a) 50 to 60% of calcium sulphate hemihydrate;
- b) 5 to 10% of an organic binder;
 - c) 0.07 to 0.15% of a water repellent; and
 - d) 3 to 7% of a lightening agent.
- 4. Joint compound composition according to one of Claims 1 to 3, characterized in that the calcium sulphate hemihydrate is of the alpha type.
 - 5. Joint compound composition according to one of Claims 1 to 4, characterized in that the organic binder is chosen from the group formed by copolymers of vinyl esters and of ethylene monomers, polyacrylics, vinyl acetate/acrylic copolymers, styrene/acrylic and styrene/butadiene copolymers, vinyl acetate/vinyl versatate/acrylic and vinyl acetate/vinyl versatate/vinyl maleate terpolymers, acrylic terpolymers and blends thereof.
- 6. Joint compound composition according to one of Claims 1 to 5, characterized in that the water repellent is chosen from the group formed by fatty acids, fatty acid salts, waxes and silicone derivatives.
 - 7. Joint compound composition according to one of Claims 1 to 5, characterized in that the water repellent is chosen from oleic acid, stearic acid and their alkali metal or alkaline-earth metal salts.
 - 8. Joint compound composition according to one of Claims 2 to 7, characterized in that the lightening agent is perlite, in particular non-water-repellent expanded perlite.

- 9. Joint compound composition according to one of Claims 1 to 8, characterized in that it is in the form of a powder.
- 10. Joint compound composition according to Claim 9, characterized in that the powder is composed of particles having a diameter of at most 200 microns.
 - 11. Method of producing a structure, in which:
 - building elements are juxtaposed;

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- the joint compound composition according to one of Claims 1 to 10 is mixed with water so as to obtain a joint compound;
 - the space between the building elements is filled by means of the joint compound obtained above, without using a tape; and
 - the joint compound is left to harden.
- 15 12. Method according to Claim 11, characterized in that the building elements are plasterboards coated with a paper facing.
 - 13. Joint between two building elements, obtained by implementing the method according to Claim 11 or Claim 12.